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## **I. STATUS OF CLAIMS**

Claims 1-32 were pending at the time of the Office Action dated March 25, 2008.

Claims 1-32 stand rejected under 35 USC 101 as allegedly being directed to non-statutory subject matter.

Claims 1-3, 5-7, 10-13, 17-19, 21-23, and 26-29 stand rejected under 35 USC §102(b) as being anticipated by U.S. Patent No. 5,938,734 to Yao et al. ("Yao"). *See Office Action*, p. 4 (March 25, 2008).

Claims 14-16 and 30-32 stand rejected under 35 USC §103(a) as being obvious over Yao in view of U.S. Patent No. 5,926,649 to Gallagher et al. ("Gallagher"). *See Office Action*, p. 12 (March 25, 2008).

Claims 4, 8-9, 20, and 24-25 stand rejected under 35 USC §103(a) as being obvious over Yao in view of U.S. Patent No. 6,345,028 to Jaeger et al. ("Jaeger"). *See Office Action*, p. 15 (March 25, 2008).

In addition, the Examiner objected to the specification.

## **II. ISSUES TO BE REVIEWED**

The issues in this response relate to whether the art of record establishes a *prima facie* case of anticipation of Applicant's Claims 1-3, 5-7, 10-13, 17-19, 21-23, and 26-29, and whether the art of record establishes a *prima facie* case of unpatentability of Applicant's Claims 4, 8-9, 14-16, 20, 24-25, and 30-32. For reasons set forth elsewhere herein, Applicant respectfully asserts that the art of record does not establish a *prima facie* case of unpatentability of any pending claim. Accordingly, Applicant respectfully requests that Examiner hold all pending Claims 1-32 allowable for at least the reasons described herein, and issue a Notice of Allowance on same.

### III. ARGUMENT: ART OF RECORD DOES NOT ESTABLISH *PRIMA FACIE* CASE OF UNPATENTABILITY IN VIEW OF CITED ART OF RECORD

Applicant respectfully asserts that, under the MPEP and legal standards for patentability as set forth below, the art of record does not establish a *prima facie* case of the unpatentability of Applicant's claims at issue. Specifically, Applicant respectfully shows below that the art of record does not recite the text of Applicant's claims at issue, and hence fails to establish a *prima facie* case of unpatentability. Accordingly, Applicant respectfully requests that the Examiner withdraw the rejections and hold all claims to be allowable over the art of record.

#### A. MPEP Standards for Patentability<sup>1</sup>

The MPEP states as follows: "the examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a *prima facie* case of unpatentability. If that burden is met, the burden of coming forward with evidence or argument shifts to the applicant. . . . If examination at the initial stage does not produce a *prima facie* case of unpatentability, then without more the applicant is entitled to grant of the patent." MPEP § 2107 (citing *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992)); *In Re Glaug*, 283 F.3d 1335, 62 USPQ2d 1151 (Fed. Cir. 2002) ("During patent examination the PTO bears the initial burden of presenting a *prima facie* case of unpatentability. *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472, 223 U.S.P.Q. 785, 788 (Fed. Cir. 1984). If the PTO fails to meet this burden, then the applicant is entitled to the patent."). Accordingly, unless and until an examiner presents evidence establishing *prima facie* unpatentability, an applicant is entitled to a patent on all claims presented for examination.

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<sup>1</sup> Applicant is aware that Examiner is familiar with the MPEP standards. Applicant is merely setting forth the MPEP standards to serve as a framework for Applicant's arguments following and to ensure a complete written record is established. Should Examiner disagree with Applicant's characterization of the MPEP standards, Applicant respectfully requests correction.

## 1. MPEP Standards for Determining Anticipation

An examiner bears the initial burden of factually supporting any *prima facie* conclusion of anticipation. *Ex Parte Skinner*, 2 U.S.P.Q.2d 1788, 1788-89 (B.P.A.I. 1986); *In Re King*, 801 F.2d 1324, 231 U.S.P.Q. (BNA) 136 (Fed. Cir. 1986); *MPEP* § 2107 (citing *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992) (“[T]he examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a *prima facie* case of unpatentability....”). Failure of an examiner to meet this burden entitles an applicant to a patent. *Id.* (“[i]f examination at the initial stage does not produce a *prima facie* case of unpatentability, then without more the applicant is entitled to grant of the patent”).

The MPEP indicates that in order for an examiner to establish a *prima facie* case of anticipation of an applicant’s claim, the examiner must first interpret the claim,<sup>2</sup> and thereafter show that the cited prior art discloses the same elements, in the same arrangement, as the elements of the claim which the examiner asserts is anticipated. More specifically, the MPEP states that “[a] claim is anticipated *only if each and every element as set forth in the claim is found*, either expressly or inherently described, in a single prior art reference. . . . The identical invention must be shown in as complete detail as is contained in the . . . claim. . . . The elements must be arranged as required by the claim . . .”. *MPEP* § 2131 (emphasis added). Consequently, under the guidelines of the MPEP set forth above, if there is *any* substantial difference between the prior art cited by an examiner and an applicant’s claim which the examiner asserts is rendered anticipated by the prior art, the prior art does NOT establish a *prima facie* case of anticipation and, barring other rejections, the applicant is entitled to a patent on such claim.

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<sup>2</sup> With respect to interpreting a claim at issue, the MPEP directs that, during examination -- as opposed to subsequent to issue -- such claim be interpreted as broadly as the claim terms would reasonably allow, in light of the specification, when read by one skilled in the art with which the claimed invention is most closely connected. *MPEP* § 2111.

## 2. MPEP Standards for Determining Obviousness

"[T]he examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness."<sup>3</sup> *MPEP* § 2142. The MPEP indicates that in order for an examiner to establish a *prima facie* case that an invention, as defined by a claim at issue, is obvious, the examiner must (1) interpret the claim at issue; (2) define one or more prior art reference components relevant to the claim at issue; (3) ascertain the differences between the one or more prior art reference components and the elements of the claim at issue; and (4) adduce objective evidence which establishes, under a preponderance of the evidence standard, a teaching to modify the teachings of the prior art reference components such that the prior art reference components can be used to construct a device substantially equivalent to the claim at issue. This last step generally encompasses two sub-steps: (1) adducement of objective evidence teaching how to modify the prior art components to achieve the individual elements of the claim at issue; and (2) adducement of objective evidence teaching how to combine the modified individual components such that the claim at issue, as a whole, is achieved. *MPEP* § 2141; *MPEP* § 2143. Each of these forgoing elements is further defined within the MPEP. *Id.*

This requirement has been explained recently by the Supreme Court in *KSR v. Teleflex*, 550 U.S. \_\_\_\_; 127 S. Ct. 1727 (2007) which noted that such a rejection requires "some articulated reasoning ... to support the legal conclusion of obviousness." As stated by the Court, obviousness can be established where "there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, *this analysis should be made explicit.*" (*emphasis added*) See *In re Kahn*, 441 F. 3d 977, 988 (CA Fed. 2006) ('[R]jections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support

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<sup>3</sup> An invention, as embodied in the claims, is rendered obvious if an examiner concludes that although the claimed invention is not identically disclosed or described in a reference, the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. *MPEP* § 2141 (citing 35 U.S.C. § 103).

the legal conclusion of obviousness.')." *KSR v. Teleflex*, 550 U.S. \_\_\_\_; 127 S. Ct. 1727 at 1741.

As further described by the Court "[A] patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. Although common sense directs one to look with care at a patent application that claims as innovation the combination of two known devices according to their established functions, it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does. This is so because inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known." *KSR v. Teleflex*, 550 U.S. \_\_\_\_; 127 S. Ct. 1727 at 1741.

**a) Interpreting a Claim at Issue**

With respect to interpreting a claim at issue, the MPEP directs that, during examination -- as opposed to subsequent to issue -- such claim be interpreted as broadly as the claim terms would reasonably allow when read by one skilled in the art with which the claimed invention is most closely connected. In practice, this is achieved by giving each of the terms in the claim the "plain meaning" of the terms as such would be understood by those having ordinary skill in the art, and if portions of the claim have no "plain meaning" within the art, or are ambiguous as used in a claim, then the examiner is to consult the specification for clarification. *MPEP* § 2111.

**b) Definition of One or More Prior Art Reference Components Relevant to the Claim at Issue**

Once the claim at issue has been properly interpreted, the next step is the definition of one or more prior art reference components (*e.g.*, electrical, mechanical, or other components set forth in a prior art reference) relevant to the properly interpreted claim at issue. With respect to the definition of one or more prior art

reference components relevant to the claim at issue, the MPEP defines three proper sources of such prior art reference components, with the further requirement that each such source must have been extant at the time of invention to be considered relevant. These three sources are as follows: patents as defined by 35 U.S.C. § 102, printed publications as defined by 35 U.S.C. § 102, and information (*e.g.*, scientific principles) deemed to be "well known in the art"<sup>4</sup> as defined under 35 U.S.C. § 102. *MPEP* § 2141; *MPEP* § 2144.

**c) Ascertainment of Differences between Prior Art Reference Components and Claim at Issue; Teaching to Modify and/or Combine Prior Art Reference Components to Remedy Those Differences in Order to Achieve Recitations of Claim at Issue**

With one or more prior art components so defined and drawn from the proper prior art sources, the differences between the one or more prior art reference components and the elements of the claim at issue are to be ascertained. Thereafter, in order to establish a case of *prima facie* obviousness, an examiner must set forth a rationale, supported by objective evidence<sup>5</sup> sufficient to demonstrate under a preponderance of the evidence standard, that in the prior art extant at the time of invention there was a teaching to modify and/or combine the one or more prior art reference components to construct a device practicably equivalent to the claim at issue.

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<sup>4</sup> The fact that information deemed to be "well known in the art" can serve as a proper source of prior art reference components seems to open the door to subjectivity, but such is not the case. As a remedy to this potential problem, *MPEP* § 2144.03 states that if an examiner asserts that his position is derived from and/or is supported by a teaching or suggestion that is alleged to have been "well known in the art," and that if an applicant traverses such an assertion (that something was "well known within the art"), the examiner must cite a reference in support of his or her position. The same *MPEP* section also states that when a rejection is based on facts within the personal knowledge of an examiner, the data should be stated as specifically as possible, and the facts must be supported, when called for by the applicant, by an affidavit from the examiner. Such an affidavit is subject to contradiction or explanation by the affidavits of the applicant and other persons. *Id.* Thus, all sources of prior art reference components must be objectively verifiable.

<sup>5</sup> The proper sources of the objective evidence supporting the rationale are the defined proper sources of prior art reference components, discussed above, with the addition of factually similar legal precedent. *MPEP* § 2144.



The preferable evidence relied upon is an express teaching to modify/combine within the properly defined objectively verifiable sources of prior art. In the absence of such express teaching, an examiner may attempt to establish a rationale to support a finding of such teaching reasoned from, or based upon, express teachings taken from the defined proper sources of such evidence (*i.e.*, properly defined objectively verifiable sources of prior art). *MPEP* § 2144; *In re Dembiczak*, 50 U.S.P.Q.2d 1614 (Fed. Cir. 1999).

The MPEP recognizes the pitfalls associated with the tendency to subconsciously use impermissible "hindsight" when an examiner attempts to establish such a rationale. The MPEP has set forth at least two rules to ensure against the likelihood of such impermissible use of hindsight. The first rule is that:

under 35 U.S.C. 103, the examiner must step backward in time and into the shoes worn by the hypothetical "person of ordinary skill in the art" when the invention was unknown and just before it was made. In view of all factual information,<sup>6</sup> the examiner must then make a determination whether the claimed invention "as a whole" would have been obvious at that time to that person. Knowledge of an Applicant's disclosure must be put aside in reaching this determination, yet kept in mind in order to determine the "differences," conduct the search, and evaluate the "subject matter as a whole" of the invention. The tendency to resort to "hindsight" based upon an Applicant's disclosure is often difficult to avoid due to the very nature of the examination process. However, impermissible hindsight must be avoided and the legal conclusion must be reached on the basis of the facts gleaned from the prior art.

*MPEP* § 2142 (emphasis added). Thus, if the only objective evidence of such teaching to modify and/or combine prior art reference components is an applicant's disclosure, no evidence of such teaching exists.<sup>7</sup>

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<sup>6</sup> "Factual information" is information actually existing or occurring, as distinguished from mere supposition or opinion. *Black's Law Dictionary* 532 (5th ed. 1979).

<sup>7</sup> An applicant may argue that an examiner's conclusion of obviousness is based on improper hindsight reasoning. However, "[a]ny judgment on obviousness is in a sense necessarily a reconstruction based on hindsight reasoning, but so long as it takes into account only knowledge which was within the level of ordinary skill in the art at the time the claimed invention was made and does not include knowledge gleaned only from applicant's disclosure, such a reconstruction is proper." *MPEP* § 2145(X)(A) (emphasis added).

The second rule is that if an examiner attempts to rely on some advantage or expected beneficial result that would have been produced by a modification and/or combination of the prior art reference components as evidence to support a rationale to establish such teachings to modify and/or combine prior art reference components, the MPEP requires that such advantage or expected beneficial result be objectively verifiable teachings present in the acceptable sources of prior art (or drawn from a convincing line of reasoning based on objectively verifiable established scientific principles or teachings). *MPEP* § 2144. Thus, as a guide to avoid the use of impermissible hindsight, these rules from the MPEP make clear that absent some objective evidence, sufficient to persuade under a preponderance of the evidence standard, no teaching of such modification and/or combination exists.<sup>8</sup>

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<sup>8</sup> *In Re Sang Su Lee* 277 F.3d 1338 (Fed. Cir. 2002) (“When patentability turns on the question of obviousness, the search for and analysis of the prior art includes evidence relevant to the finding of whether there is a teaching, motivation, or suggestion to select and combine the references relied on as evidence of obviousness.”) *See, e.g., McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1351-52, 60 U.S.P.Q.2d 1001, 1008 (Fed. Cir. 2001) (“the central question is whether there is reason to combine [the] references,” a question of fact drawing on the *Graham* factors). “The factual inquiry whether to combine references must be thorough and searching.” *Id.* It must be based on objective evidence of record. This precedent has been reinforced in myriad decisions, and cannot be dispensed with. *See, e.g., Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1124-25, 56 U.S.P.Q.2d 1456, 1459 (Fed. Cir. 2000) (“a showing of a suggestion, teaching, or motivation to combine the prior art references is an ‘essential component of an obviousness holding’”) (quoting *C.R. Bard, Inc., v. M3 Systems, Inc.*, 157 F.3d 1340, 1352, 48 U.S.P.Q.2d 1225, 1232 (Fed. Cir. 1998)); *In re Dembiczak*, 175 F.3d 994, 999, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999) (“Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references.”); *In re Dance*, 160 F.3d 1339, 1343, 48 U.S.P.Q.2d 1635, 1637 (Fed. Cir. 1998) (there must be some motivation, suggestion, or teaching of the desirability of making the specific combination that was made by the applicant); *In re Fine*, 837 F.2d 1071, 1075, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988) (“‘teachings of references can be combined only if there is some suggestion or incentive to do so.’”) (emphasis in original) (quoting *ACS Hosp. Sys., Inc. v. Montefiore Hosp.*, 732 F.2d 1572, 1577, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984)). The need for specificity pervades this authority. *See, e.g., In re Kotzab*, 217 F.3d 1365, 1371, 55 U.S.P.Q.2d 1313, 1317 (Fed. Cir. 2000) (“particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed”); *In re Rouffet*, 149 F.3d 1350, 1359, 47 U.S.P.Q.2d 1453, 1457-58 (Fed. Cir. 1998) (“even when the level of skill in the art is high, the Board must identify specifically the principle, known to one of ordinary skill, that suggests the claimed combination. In other words, the Board must explain the reasons one of ordinary skill in the art would have been motivated to select the references and to combine them to render the claimed invention obvious.”)).

**B. Technical Material Cited by Examiner (Yao (US 5,938,734)) Does Not Show or Suggest the Text of Independent Claim 1 as Presented Herein; Notice of Allowance of Same Respectfully Requested**

**1. Independent Claim 1**

Independent Claim 1 recites:

A method comprising:

determining an organization of at least one content of at least one spatial data storage system;

defining a schedule of content transmission in response to the organization of the at least one content of the at least one spatial data storage system, the schedule expressly identifying the content by one or more transmission times; and

transmitting the content according to the schedule, wherein the content is addressable at the one or more transmission times.

As shown following, the technical material cited by Examiner does not show or suggest at least part of the text of Independent Claim 1. Accordingly, Applicant respectfully requests that Examiner allow Independent Claim 1, as described more fully below.

**a) Technical Material Cited by Examiner Does Not Show or Suggest the Text of at Least Independent Claim 1.**

As set forth above, Independent Claim 1 recites as follows:

1. A method comprising:

[a] determining an organization of at least one content of at least one spatial data storage system;

[b] *defining a schedule of content transmission* in response to the organization of the at least one content of the at least one spatial data storage system, the schedule expressly identifying the content by one or more *transmission times*; and

[c] transmitting the content according to the schedule, wherein the content is addressable at the one or more transmission times.<sup>9</sup> (Emphases added.)

With respect to claim 1, Examiner has stated,

“Yao discloses a method comprising:  
determining an organization of at least one content of at least one spatial data storage system (co. 6, lines 59-64; Fig. 4, element S18); *It should be noted that the “disk device” is analogous to the “spatial data storage system.*  
and defining a schedule of content transmission in response to the organization of the at least one content of the at least one spatial data storage system, the schedule expressly identifying the content by one or more times (col. 7, lines 21-60; Fig. 5, elements S21-S25). *It should be noted that “carries out the scheduling” is analogous to “defining a schedule.”*”

**(1) Examiner Citations to Yao With Regard to Clause [b] of Independent Claim 1:**

Applicant respectfully points out that Applicant has reviewed the portions of Yao identified by Examiner, and so far as Applicant can discern, Yao does not recite the text of clause [b] of Applicant's Independent Claim 1. Rather, the portions of Yao cited by Examiner with respect to Claim 1 recite as follows:

When a request for supply of the real time stream data is received from a client 7 through the network 6 (step S21), the request connection processing unit 21 first obtains a directory information for the requested real time stream data from the directory management unit 23 (step S22). Then, the number m of unit streams to be used is obtained from the directory information (step S23), and as many stream structures in the scheduling unit 22 as necessary for holding information required in managing m pieces of unit streams are secured (reserved), while a necessary amount of regions in the buffer memory 4 are secured (reserved) (step S24).

Next, the scheduling unit 22 carries out the scheduling including a selection of transfer start timings for the unit streams S0 to Sm-1 to be used (step S25). Here, by the real time stream data storing procedure described above, m

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<sup>9</sup> The lettering of the clauses herein is merely for sake of clarity of argument and should not be taken to imply any particular ordering of the clauses.

pieces of blocks  $b(m \cdot \text{times} \cdot k + j)$  ( $j=0, \dots, m-1$ ) which are continuous in the original real time stream data are sequentially distributed among the unit streams  $S_0$  to  $S_{m-1}$ . Consequently, in order to carry out the transfer of these blocks continuously, the transfer start timings of the unit streams  $S_0$  to  $S_{m-1}$  are displaced one another by the block transfer time  $T/m$  part.

Here however it is necessary for each one of the unit streams  $S_0$  to  $S_{m-1}$  to select a time-slot for carrying out the disk access, so that it becomes possible to read out the respective top block from the disk device 31 which stores that top block, before the selected transfer start timing, without affecting the continuity of the other already connected unit streams. Note that the ID number of the disk device 31 which stores the top block of each unit stream can be obtained from the directory information obtained at the step S22. This time-slot selection operation will be described in detail below. When this condition is not satisfied, it is necessary to select different transfer start timings anew.

Each one of the unit streams  $S_0$  to  $S_{m-1}$  so connected is then scheduled as an independent unit stream for which the block transfer time for one block is  $T/m$ , that is, scheduled according to the block transfer period  $T$ , the block size  $L$ , the time-slot interval  $I$ , and the block transfer time  $T/m$ . (col. 7, lines 21-60). ...

FIG. 5 is a flow chart of an operation for supplying real time stream data according to a request from external in the real time stream server.

Elements S21-S25 of Fig. 5 are steps of the operation shown in Fig. 5, including S25, which recites: "carry out scheduling of each unit stream."

See Yao (US 5,938,734 col. 7, lines 21-60; Fig. 5, elements S21-S25).

As can be seen from the foregoing, the Examiner-identified portions of Yao do not recite the text of clause [b] as recited in Independent Claim 1. For example, Yao discloses "the scheduling unit 22 carries out the scheduling including a selection of transfer start timings for the unit streams." On the other hand, clause [b] of Claim 1 recites "*defining a schedule of content transmission* in response to the organization of the at least one content of the at least one spatial data storage system, the schedule expressly identifying the content by one or more *transmission times*;" (emphasis added). Neither the cited text nor Figure recite "*defining a schedule of content transmission*" or "the schedule expressly identifying the content by one or more *transmission times*". Additionally, the Examiner asserts that *It should be noted that*

“carries out the scheduling” is analogous to “defining a schedule”, however, Applicant respectfully traverses the Examiner’s assertion.

From the Yao citation above, the Yao reference describes:

“Next, the scheduling unit 22 carries out the scheduling including a selection of transfer start timings for the unit streams S0 to Sm-1 to be used (step S25). Here, by the real time stream data storing procedure described above, *m* pieces of blocks  $b(m \cdot \text{times} \cdot k + j)$  ( $j=0, \dots, m-1$ ) which are continuous in the original real time stream data are sequentially distributed among the unit streams S0 to Sm-1. Consequently, in order to carry out the transfer of these blocks continuously, the transfer start timings of the unit streams S0 to Sm-1 are displaced one another by the block transfer time  $T/m$ . Here however it is necessary for each one of the unit streams S0 to Sm-1 to select a time-slot for carrying out the disk access, so that it becomes possible to read out the respective top block from the disk device 31 which stores that top block, before the selected transfer start timing, without affecting the continuity of the other already connected unit streams.” (Emphases added.)

From the above Examiner-identified portions of Yao, it is clear that the Yao scheduling unit carries out selection of transfer start timing for unit streams, but the unit streams are not *the original real time stream*, which is broken up into *m pieces of blocks...which are continuous in the original real time stream and sequentially distributed among the unit streams*. Moreover, in order to carry out the transfer of these blocks continuously, the transfer start timings of the unit streams S0 to Sm-1 are displaced one another by the block transfer time  $T/m$ . Yao continues, saying it is necessary for each one of the unit streams S0 to Sm-1 to select a time-slot for carrying out the disk access, so that it becomes possible to read out the respective top block from the disk device 31 which stores that top block, before the selected transfer start timing, without affecting the continuity of the other already connected unit streams.

The last sentence above states that “it is necessary for each one of the Yao unit streams to select a time-slot for carrying out disk access, so that it becomes possible to read out the respective top block from the disk device 31 which stores that top block, before the selected transfer start time...” This Yao passage describes reading the disk device (i.e., conventionally / spatially) for a top block before the selected Yao transfer start time. In other words, Yao does not recite *defining a schedule* and does

not recite *the schedule expressly identifying the content by one or more transmission times* as recited in Applicant's claim 1.

Applicant has reviewed the Examiner-cited portions of Yao and is unable to locate a recitation of clause [b] of Claim 1. Applicant further respectfully points out that the Examiner has provided no objectively verifiable evidence or reason as to why the text of the reference passages should be interpreted to teach clause [b] of Independent Claim 1 as the Examiner alleges.

Given that Applicant has shown, above, what Yao actually recites, the question thus naturally arises as to how Examiner saw Yao as "teaching" something related to Clause [b] of Independent Claim 1. Applicant respectfully points out that the Applicant's Application is the only objectively verifiable examiner-cited document of record that shows or suggests what Examiner purports the reference to teach. From this and the express recitations of Yao as set forth, it follows that Examiner is interpreting Jaeger through the lens of Applicant's application, which is impermissible hindsight use. Thus, at present, Examiner's assertions regarding Jaeger are untenable. Under the MPEP guidelines as set forth above, the cited art of record fails to establish a prima facie case of unpatentability for at least these reasons. Accordingly, for at least the foregoing reasons, Applicant respectfully requests that Examiner hold Independent Claim 1 allowable and issue a Notice of Allowability of same.

In the alternative and/or in addition to the foregoing, as Examiner has provided no objectively verifiable evidence, nor argument based on objectively verifiable evidence, in support of Examiner assertions regarding what the technical material cited by Examiner "teaches," Applicant infers that the Examiner is relying on "personal knowledge" and/or is taking "official notice" of one or more factors to reach the factual conclusion of what the cited technical material "teaches." In view of the foregoing, if Examiner desires to maintain the rejection, in the next communication, Applicant respectfully requests that the Examiner provide an affidavit or declaration setting forth objectively verifiable evidence in support of Examiner's currently unsupported assertions regarding what the cited technical material "teaches" and/or should be interpreted to "teach." *See, e.g., MPEP S 2144.03(C), If Applicant Challenges a Factual Assertion as Not Properly*

*Officially Notices or Not Properly Based Upon Common Knowledge, the Examiner Must Support the Finding with Adequate Evidence*, and 37 C.F.R. 1.104(d)(2).

In view of the foregoing, and under the MPEP standards as set forth above, Applicant respectfully submits that the Examiner-cited technical material does not establish a *prima facie* case of the unpatentability of Independent Claim 1. Accordingly, for at least the foregoing reasons, Applicant respectfully asks Examiner to hold amended Independent Claim 1 allowable and to issue a Notice of Allowance of same.

**(2) Yao Does Not Show or Suggest Clause [c] of Independent Claim 1:**

Furthermore, Applicant respectfully points out that Applicant has reviewed Yao thoroughly, and so far as Applicant can discern, Yao also does not recite the text of clause [c] of Applicant's Independent Claim 1, which recites, “*transmitting the content according to the schedule*, wherein the content is *addressable at the one or more transmission times*.” Although Yao teaches “Each one of the unit streams S0 to Sm-1 so connected is then scheduled as an independent unit stream for which the block transfer time for one block is T/m, that is, scheduled according to the block transfer period T, the block size L, the time-slot interval I, and the block transfer time T/m,” Yao fails to show or suggest “*transmitting the content according to the schedule*, wherein the content is *addressable at the one or more transmission times*” as recited in clause [c] of Applicant's Independent Claim 1.

Again, given that Applicant has shown, above, what Yao actually recites, the question thus naturally arises as to how Examiner saw Yao as “teaching” something related to Clause [c] of Independent Claim 1. Applicant respectfully points out that the Applicant's Application is the only objectively verifiable examiner-cited document of record that shows or suggests what Examiner purports the reference to teach. From this and the express recitations of Yao as set forth, it follows that Examiner is interpreting Jaeger through the lens of Applicant's application, which is impermissible hindsight use. Thus, at present, Examiner's assertions regarding Jaeger are untenable. Under the MPEP guidelines as set forth above, the cited art of record fails to establish a *prima facie* case of



unpatentability for at least these reasons. Accordingly, for at least the foregoing reasons, Applicant respectfully requests that Examiner hold Independent Claim 1 allowable and issue a Notice of Allowability of same.

In the alternative and/or in addition to the foregoing, as Examiner has provided no objectively verifiable evidence, nor argument based on objectively verifiable evidence, in support of Examiner assertions regarding what the technical material cited by Examiner “teaches,” Applicant infers that the Examiner is relying on “personal knowledge” and/or is taking “official notice” of one or more factors to reach the factual conclusion of what the cited technical material “teaches.” In view of the foregoing, if Examiner desires to maintain the rejection, in the next communication, Applicant respectfully requests that the Examiner provide an affidavit or declaration setting forth objectively verifiable evidence in support of Examiner’s currently unsupported assertions regarding what the cited technical material “teaches” and/or should be interpreted to “teach.” *See, e.g., MPEP S 2144.03(C), If Applicant Challenges a Factual Assertion as Not Properly Officially Notices or Not Properly Based Upon Common Knowledge, the Examiner Must Support the Finding with Adequate Evidence*, and 37 C.F.R. 1.104(d)(2).

In view of the foregoing, and under the MPEP standards as set forth above, Applicant respectfully submits that the Examiner-cited technical material does not establish a *prima facie* case of the unpatentability of Independent Claim 1. Accordingly, for at least the foregoing reasons, Applicant respectfully asks Examiner to hold amended Independent Claim 1 allowable and to issue a Notice of Allowance of same.

## **2. Dependent Claims 2-16 Patentable for at Least Reasons of Dependency from Independent Claim 1.**

Claims 2-16 depend either directly or indirectly from Independent Claim 1. “A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers.” *See* 35 U.S.C. § 112 paragraph 4. Consequently, Dependent Claims 2-16 are patentable for at least the reasons why Independent Claim 1 is patentable. Accordingly, Applicant respectfully requests

that Examiner hold Dependent Claims 2-16 patentable for at least the foregoing reasons, and issue a Notice of Allowance on same.

**C. Technical Material Cited by Examiner (Yao (US 5,938,734)) Does Not Show or Suggest the Text of Independent Claim 17 as Presented Herein; Notice of Allowance of Same Respectfully Requested**

**1. Independent Claim 17**

Independent Claim 17 recites:

A system comprising:

means for determining an organization of at least one content of at least one spatial data storage system;

means for defining a schedule of content transmission in response to the organization of the at least one content of the at least one spatial data storage system, the schedule expressly identifying the content by one or more times; and

means for transmitting the content according to the schedule, wherein the content is addressable at the one or more transmission times.

As shown following, the technical material cited by Examiner does not show or suggest at least part of the text of Independent Claim 17. Accordingly, Applicant respectfully requests that Examiner allow Independent Claim 17, as described more fully below.

**a) Technical Material Cited by Examiner Does Not Show or Suggest the Text of at Least Independent Claim 17.**

As set forth above, Independent Claim 17 recites as follows:

17. A system comprising:

[a] means for determining an organization of at least one content of at least one spatial data storage system;

[b] means for defining a schedule of content transmission in response to the organization of the at least one content of the at least one spatial data storage system, the schedule expressly identifying the content by one or more times; and

[c] means for transmitting the content according to the schedule, wherein the content is addressable at the one or more transmission times.

With respect to claim 17, the Examiner has stated,

“Yao discloses a system comprising:

means for determining an organization of at least one content of at least one spatial data storage system (co. 6, lines 59-64; Fig. 4, element S18); *See the citation note for the similar limitation in claim 1 above.*

means for defining a schedule of content transmission in response to the organization of the at least one content of the at least one spatial data storage system, the schedule expressly identifying the content by one or more times (col. 7, lines 21-60; Fig. 5, elements S21-S25). *See the citation note for the similar limitation in claim 1 above.*”

**(1) Examiner Citations to Yao With Regard to  
Clause [b] of Independent Claim 17:**

Applicant respectfully points out that Applicant has reviewed the portions of Yao identified by Examiner, and so far as Applicant can discern, Yao does not recite the text of clause [b] of Applicant's Independent Claim 17. Rather, the portions of Yao cited by Examiner with respect to Claim 17 recite as follows:

When a request for supply of the real time stream data is received from a client 7 through the network 6 (step S21), the request connection processing unit 21 first obtains a directory information for the requested real time stream data from the directory management unit 23 (step S22).

Then, the number m of unit streams to be used is obtained from the directory information (step S23), and as many stream structures in the scheduling unit

22 as necessary for holding information required in managing  $m$  pieces of unit streams are secured (reserved), while a necessary amount of regions in the buffer memory 4 are secured (reserved) (step S24).

Next, the scheduling unit 22 carries out the scheduling including a selection of transfer start timings for the unit streams  $S_0$  to  $S_{m-1}$  to be used (step S25). Here, by the real time stream data storing procedure described above,  $m$  pieces of blocks  $b(m.times.k+j)$  ( $j=0, \dots, m-1$ ) which are continuous in the original real time stream data are sequentially distributed among the unit streams  $S_0$  to  $S_{m-1}$ . Consequently, in order to carry out the transfer of these blocks continuously, the transfer start timings of the unit streams  $S_0$  to  $S_{m-1}$  are displaced one another by the block transfer time  $T/m$ .

Here however it is necessary for each one of the unit streams  $S_0$  to  $S_{m-1}$  to select a time-slot for carrying out the disk access, so that it becomes possible to read out the respective top block from the disk device 31 which stores that top block, before the selected transfer start timing, without affecting the continuity of the other already connected unit streams. Note that the ID number of the disk device 31 which stores the top block of each unit stream can be obtained from the directory information obtained at the step S22. This time-slot selection operation will be described in detail below. When this condition is not satisfied, it is necessary to select different transfer start timings anew.

Each one of the unit streams  $S_0$  to  $S_{m-1}$  so connected is then scheduled as an independent unit stream for which the block transfer time for one block is  $T/m$ , that is, scheduled according to the block transfer period  $T$ , the block size  $L$ , the time-slot interval  $I$ , and the block transfer time  $T/m$ . (col. 7, lines 21-60).

...

FIG. 5 is a flow chart of an operation for supplying real time stream data according to a request from external in the real time stream server.

Elements S21-S25 of Fig. 5 are steps of the operation shown in Fig. 5, including S25, which recites: "carry out scheduling of each unit stream."

See Yao (US 5,938,734 col. 7, lines 21-60; Fig. 5, elements S21-S25).

As can be seen from the foregoing, the Examiner-identified portions of Yao do not recite the text of clause [b] as recited in Independent Claim 17. For example, Yao discloses "the scheduling unit 22 carries out the scheduling including a selection of transfer start timings for the unit streams." On the other hand, clause [b] of Claim 17 recites "*defining a schedule of content transmission* in response to the organization of

the at least one content of the at least one spatial data storage system, the schedule expressly identifying the content by one or more *transmission times*;" (emphasis added). Neither the cited text nor Figure recite "*defining a schedule of content transmission*" or "the schedule expressly identifying the content by one or more *transmission times*". Additionally, the Examiner asserts that *It should be noted that "carries out the scheduling" is analogous to "defining a schedule"*, however, Applicant respectfully traverses this assertion .

From the Yao citation above, the Yao reference describes:

"Next, the scheduling unit 22 *carries out the scheduling* including a *selection of transfer start timings for the unit streams S0 to Sm-1 to be used* (step S25). Here, by the *real time stream data storing* procedure described above, *m pieces of blocks b(m.times.k+j) (j=0, . . . , m-1) which are continuous in the original real time stream data are sequentially distributed among the unit streams S0 to Sm-1. Consequently, in order to carry out the transfer of these blocks continuously, the transfer start timings of the unit streams S0 to Sm-1 are displaced one another by the block transfer time T/m.*

Here however *it is necessary for each one of the unit streams S0 to Sm-1 to select a time-slot for carrying out the disk access, so that it becomes possible to read out the respective top block from the disk device 31 which stores that top block, before the selected transfer start timing, without affecting the continuity of the other already connected unit streams."* (Emphases added.)

From the above Examiner-identified portions of Yao, it is clear that the Yao scheduling unit carries out selection of transfer start timing for unit streams, but the unit streams are not *the original real time stream*, which is broken up into *m pieces of blocks...which are continuous in the original real time stream and sequentially distributed among the unit streams*. Moreover, *in order to carry out the transfer of these blocks continuously, the transfer start timings of the unit streams S0 to Sm-1 are displaced one another by the block transfer time T/m*. Yao continues, saying it is

*necessary for each one of the unit streams S0 to Sm-1 to select a time-slot for carrying out the disk access, so that it becomes possible to read out the respective top block from the disk device 31 which stores that top block, before the selected transfer start timing, without affecting the continuity of the other already connected unit streams.*

The last sentence above states that “it is necessary for each one of the Yao unit streams to select a time-slot for carrying out disk access, so that it becomes possible to read out the respective top block from the disk device 31 which stores that top block, before the selected transfer start time...””. This Yao passage describes reading the disk device (i.e., conventionally / spatially) for a top block before the selected Yao transfer start time. In other words, Yao does not recite *defining a schedule* and does not recite *the schedule expressly identifying the content by one or more transmission times* as recited in Applicant’s claim 17.

Applicant has reviewed the Examiner-cited portions of Yao and is unable to locate a recitation of clause [b] of Claim 17. Applicant further respectfully points out that the Examiner has provided no objectively verifiable evidence or reason as to why the text of the reference passages should be interpreted to teach clause [b] of Independent Claim 17 as the Examiner alleges.

Again, given that Applicant has shown, above, what Yao actually recites, the question thus naturally arises as to how Examiner saw Yao as “teaching” something related to Clause [b] of Independent Claim 17. Applicant respectfully points out that the Applicant’s Application is the only objectively verifiable examiner-cited document of record that shows or suggests what Examiner purports the reference to teach. From this and the express recitations of Yao as set forth, it follows that Examiner is interpreting Jaeger through the lens of Applicant’s application, which is impermissible hindsight use. Thus, at present, Examiner’s assertions regarding Jaeger are untenable. Under the MPEP guidelines as set forth above, the cited art of record fails to establish a prima facie case of unpatentability for at least these reasons. Accordingly, for at least the foregoing reasons, Applicant respectfully requests that Examiner hold Independent Claim 17 allowable and issue a Notice of Allowability of same.

In the alternative and/or in addition to the foregoing, as Examiner has provided no objectively verifiable evidence, nor argument based on objectively verifiable evidence, in support of Examiner assertions regarding what the technical material cited by Examiner “teaches,” Applicant infers that the Examiner is relying on “personal knowledge” and/or is taking “official notice” of one or more factors to reach the factual conclusion of what the cited technical material “teaches.” In view of the foregoing, if Examiner desires to maintain the rejection, in the next communication, Applicant respectfully requests that the Examiner provide an affidavit or declaration setting forth objectively verifiable evidence in support of Examiner’s currently unsupported assertions regarding what the cited technical material “teaches” and/or should be interpreted to “teach.” See, e.g., MPEP S 2144.03(C), *If Applicant Challenges a Factual Assertion as Not Properly Officially Notices or Not Properly Based Upon Common Knowledge, the Examiner Must Support the Finding with Adequate Evidence*, and 37 C.F.R. 1.104(d)(2).

In view of the foregoing, and under the MPEP standards as set forth above, Applicant respectfully submits that the Examiner-cited technical material does not establish a *prima facie* case of the unpatentability of Independent Claim 17. Accordingly, for at least the foregoing reasons, Applicant respectfully asks Examiner to hold amended Independent Claim 17 allowable and to issue a Notice of Allowance of same.

**(2) Yao Does Not Show or Suggest Clause [c] of Independent Claim 17:**

Furthermore, Applicant respectfully points out that Applicant has reviewed Yao thoroughly, and so far as Applicant can discern, Yao also does not recite the text of clause [c] of Applicant’s Independent Claim 17, which recites, “means for *transmitting the content according to the schedule*, wherein the content is *addressable at the one or more transmission times*.” Although Yao teaches “Each one of the unit streams  $S_0$  to  $S_{m-1}$  so connected is then scheduled as an independent unit stream for which the block transfer time for one block is  $T/m$ , that is, scheduled according to the block transfer period  $T$ , the block size  $L$ , the time-slot interval  $I$ , and the block transfer time  $T/m$ ,” Yao fails to show or suggest “means for *transmitting the content*

according to the schedule, wherein the content is addressable at the one or more transmission times” as recited in clause [c] of Applicant’s Independent Claim 17.

Again, given that Applicant has shown, above, what Yao actually recites, the question thus naturally arises as to how Examiner saw Yao as “teaching” something related to Clause [c] of Independent Claim 17. Applicant respectfully points out that the Applicant’s Application is the only objectively verifiable examiner-cited document of record that shows or suggests what Examiner purports the reference to teach. From this and the express recitations of Yao as set forth, it follows that Examiner is interpreting Jaeger through the lens of Applicant’s application, which is impermissible hindsight use. Thus, at present, Examiner’s assertions regarding Jaeger are untenable. Under the MPEP guidelines as set forth above, the cited art of record fails to establish a *prima facie* case of unpatentability for at least these reasons. Accordingly, for at least the foregoing reasons, Applicant respectfully requests that Examiner hold Independent Claim 17 allowable and issue a Notice of Allowability of same.

In the alternative and/or in addition to the foregoing, as Examiner has provided no objectively verifiable evidence, nor argument based on objectively verifiable evidence, in support of Examiner assertions regarding what the technical material cited by Examiner “teaches,” Applicant infers that the Examiner is relying on “personal knowledge” and/or is taking “official notice” of one or more factors to reach the factual conclusion of what the cited technical material “teaches.” In view of the foregoing, if Examiner desires to maintain the rejection, in the next communication, Applicant respectfully requests that the Examiner provide an affidavit or declaration setting forth objectively verifiable evidence in support of Examiner’s currently unsupported assertions regarding what the cited technical material “teaches” and/or should be interpreted to “teach.” *See, e.g., MPEP S 2144.03(C), If Applicant Challenges a Factual Assertion as Not Properly Officially Noticed or Not Properly Based Upon Common Knowledge, the Examiner Must Support the Finding with Adequate Evidence*, and 37 C.F.R. 1.104(d)(2).

In view of the foregoing, and under the MPEP standards as set forth above, Applicant respectfully submits that the Examiner-cited technical material does not establish a *prima facie* case of the unpatentability of Independent Claim 17. Accordingly, for at least the foregoing reasons, Applicant respectfully asks Examiner to



hold amended Independent Claim 17 allowable and to issue a Notice of Allowance of same.

**2. Dependent Claims 18-32 Patentable for at Least Reasons of Dependency from Independent Claim 17.**

Claims 18-32 depend either directly or indirectly from Independent Claim 17. "A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers." *See* 35 U.S.C. § 112 paragraph 4. Consequently, Dependent Claims 18-32 are patentable for at least the reasons why Independent Claim 17 is patentable. Accordingly, Applicant respectfully requests that Examiner hold Dependent Claims 18-32 patentable for at least the foregoing reasons, and issue a Notice of Allowance on same.

**D. Technical Material Cited by Examiner (Yao in view of Gallagher (US 5,644,786)), Does Not Show or Suggest the Text of Claims 14-16 as Presented Herein; Notice of Allowance of Same Respectfully Requested**

Claims 14-16 depend from Independent Claim 1. As remarked above, the Examiner has not established a prima facie case that the art of record anticipates Independent Claim 1.

Besides claims 14-16 being allowable because they include all the language of their allowable base claim 1, these claims are also allowable because in combining Gallagher with Yao, the Examiner has not established a prima facie case of obviousness with respect to claims 14-16. That is, Yao in view of Gallagher does not establish a prima facie case of obviousness for any of claims 14-16.

Gallagher describes a method for scheduling the execution of disk input/output operations, but the scheduling is directed to multiple process requests for read/write access to a disk memory device and constitutes conventional spatial storage retrieval operations, such as queuing process requests to the disk controller (see Abstract and e.g., col. 3, lines 61-63). Gallagher does not cure the deficiency

of Yao in not showing or suggesting at least some of the elements of Applicant's claim 1. Thus, the combination fails to establish a prima facie case of obviousness.

Given that Applicant has shown, above, what Yao in view of Gallagher actually recites, the question thus naturally arises as to how Examiner saw Yao in view of Gallagher as "teaching" something related to Claims 14-16. Applicant respectfully points out that the Applicant's Application is the only objectively verifiable examiner-cited document of record that shows or suggests what Examiner purports the reference to teach. From this and the express recitations of Yao in view of Gallagher as set forth, it follows that Examiner is interpreting Jaeger through the lens of Applicant's application, which is impermissible hindsight use. Thus, at present, Examiner's assertions regarding Jaeger are untenable. Under the MPEP guidelines as set forth above, the cited art of record fails to establish a prima facie case of unpatentability for at least these reasons. Accordingly, for at least the foregoing reasons, Applicant respectfully requests that Examiner hold Claims 14-16 allowable and issue a Notice of Allowability of same.

In the alternative and/or in addition to the foregoing, as Examiner has provided no objectively verifiable evidence, nor argument based on objectively verifiable evidence, in support of Examiner assertions regarding what the technical material cited by Examiner "teaches," Applicant infers that the Examiner is relying on "personal knowledge" and/or is taking "official notice" of one or more factors to reach the factual conclusion of what the cited technical material "teaches." In view of the foregoing, if Examiner desires to maintain the rejection, in the next communication, Applicant respectfully requests that the Examiner provide an affidavit or declaration setting forth objectively verifiable evidence in support of Examiner's currently unsupported assertions regarding what the cited technical material "teaches" and/or should be interpreted to "teach." See, e.g., MPEP S 2144.03(C), *If Applicant Challenges a Factual Assertion as Not Properly Officially Noticed or Not Properly Based Upon Common Knowledge, the Examiner Must Support the Finding with Adequate Evidence*, and 37 C.F.R. 1.104(d)(2).

Accordingly, under the MPEP standards as set forth above, the Examiner has not established a prima facie case that art of record renders unpatentable claims 14-16. Applicant respectfully asks the Examiner to hold claims 14-16 allowable and issue a Notice of Allowance of same.

**1. Dependent Claims 14-16: Patentable for at Least Reasons of Dependency from Independent Claim 1.**

In addition to the above remarks, claims 14-16 also depend either directly or indirectly from Independent Claim 1. "A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers." See 35 U.S.C. § 112 paragraph 4. Consequently, Dependent Claims 14-16 are patentable for at least the reasons why Independent Claim 1 is patentable.

Given that Applicant has shown above what Yao and Gallagher actually recite, the question thus naturally arises as to how Examiner saw Yao and Gallagher as teaching clauses [a] and [b] of Independent Claim 1, or other recitations of dependent claims 14-16. Applicant respectfully points out that the Applicant's Application is the only objective examiner-cited document of record that shows or suggests what Examiner purports the reference to teach. From this and Yao and Gallagher's express recitations (see above), it follows that Examiner is interpreting Yao and Gallagher through the lens of Applicant's application, which is impermissible hindsight use. Thus, at present, Examiner's assertions regarding Yao and Gallagher are untenable.

In the alternative and/or in addition to the foregoing, as Examiner has provided no objectively verifiable evidence, nor argument based on objectively verifiable evidence, in support of Examiner assertions regarding what the technical material cited by Examiner "teaches," Applicant infers that the Examiner is relying on "personal knowledge" and/or is taking "official notice" of one or more factors to reach the factual conclusion of what the cited technical material "teaches." In view of the foregoing, if Examiner desires to maintain the rejection, in the next communication, Applicant respectfully requests that the Examiner provide an affidavit or declaration setting forth objectively verifiable evidence in support of Examiner's currently unsupported assertions regarding what the cited technical material "teaches" and/or should be interpreted to "teach." See, e.g., MPEP S 2144.03(C), *If Applicant Challenges a Factual Assertion as Not Properly Officially Noticed or Not Properly Based Upon Common Knowledge, the Examiner Must Support the Finding with Adequate Evidence*, and 37 C.F.R. 1.104(d)(2).

Accordingly, Applicant respectfully requests that Examiner hold Dependent Claims 14-16 patentable for at least the foregoing reasons, and issue a Notice of Allowance on same.

**E. Technical Material Cited by Examiner (Yao in view of Gallagher (US 5,644,786)), Does Not Show or Suggest the Text of Claims 30-32 as Presented Herein; Notice of Allowance of Same Respectfully Requested**

Claims 30-32 depend from Independent Claim 17. As remarked above, the Examiner has not established a prima facie case that the art of record anticipates Independent Claim 17.

Besides claims 30-32 being allowable because they include all the language of their allowable base claim 17, these claims are also allowable because in combining Gallagher with Yao, the Examiner has not established a prima facie case of obviousness with respect to claims 30-32. That is, Yao in view of Gallagher does not establish a prima facie case of obviousness for any of claims 30-32.

Gallagher describes a method for scheduling the execution of disk input/output operations, but the scheduling is directed to multiple process requests for read/write access to a disk memory device and constitutes conventional spatial storage retrieval operations, such as queuing process requests to the disk controller (see Abstract and e.g., col. 3, lines 61-63). Gallagher does not cure the deficiency of Yao in not reciting the elements of Applicant's claim 17. Thus, the combination fails to establish a prima facie case of obviousness.

Given that Applicant has shown, above, what Yao in view of Gallagher actually recites, the question thus naturally arises as to how Examiner saw Yao in view of Gallagher as "teaching" something related to Claims 30-32. Applicant respectfully points out that the Applicant's Application is the only objectively verifiable examiner-cited document of record that shows or suggests what Examiner purports the reference to teach. From this and the express recitations of Yao in view of Gallagher as set forth, it follows that Examiner is interpreting Jaeger through the lens of Applicant's application, which is impermissible hindsight use. Thus, at present, Examiner's assertions regarding Jaeger are untenable. Under the MPEP guidelines as set forth above, the cited art of record fails to establish a prima facie case of unpatentability for at least these reasons.

Accordingly, for at least the foregoing reasons, Applicant respectfully requests that Examiner hold Claims 30-32 allowable and issue a Notice of Allowability of same.

In the alternative and/or in addition to the foregoing, as Examiner has provided no objectively verifiable evidence, nor argument based on objectively verifiable evidence, in support of Examiner assertions regarding what the technical material cited by Examiner “teaches,” Applicant infers that the Examiner is relying on “personal knowledge” and/or is taking “official notice” of one or more factors to reach the factual conclusion of what the cited technical material “teaches.” In view of the foregoing, if Examiner desires to maintain the rejection, in the next communication, Applicant respectfully requests that the Examiner provide an affidavit or declaration setting forth objectively verifiable evidence in support of Examiner’s currently unsupported assertions regarding what the cited technical material “teaches” and/or should be interpreted to “teach.” *See, e.g., MPEP S 2144.03(C), If Applicant Challenges a Factual Assertion as Not Properly Officially Notices or Not Properly Based Upon Common Knowledge, the Examiner Must Support the Finding with Adequate Evidence*, and 37 C.F.R. 1.104(d)(2).

Accordingly, under the MPEP standards as set forth above, the Examiner has not established a prima facie case that art of record renders unpatentable claims 30-32. Applicant respectfully asks the Examiner to hold claims 30-32 allowable and issue a Notice of Allowance of same.

**1. Dependent Claims 30-32: Patentable for at Least Reasons of Dependency from Independent Claim 17.**

In addition to the above remarks, claims 30-32 depend either directly or indirectly from Independent Claim 17. “A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers.” *See* 35 U.S.C. § 112 paragraph 4. Consequently, Dependent Claims 30-32 are patentable for at least the reasons why Independent Claim 17 is patentable.

Again, since Applicant has shown above what Yao and Jaeger actually recite, the question thus naturally arises as to how Examiner saw Yao and Jaeger as teaching clauses [a] and [b] of Independent Claim 17, or other recitations of dependent claims 30-32. Applicant respectfully points out that the Applicant’s

Application is the only objective examiner-cited document of record that shows or suggests what Examiner purports the reference to teach. From this and Yao and Jaeger's express recitations (see above), it follows that Examiner is interpreting Yao and Jaeger through the lens of Applicant's application, which is impermissible hindsight use. Thus, at present, Examiner's assertions regarding Yao and Jaeger are untenable.

In the alternative and/or in addition to the foregoing, as Examiner has provided no objectively verifiable evidence, nor argument based on objectively verifiable evidence, in support of Examiner assertions regarding what the technical material cited by Examiner "teaches," Applicant infers that the Examiner is relying on "personal knowledge" and/or is taking "official notice" of one or more factors to reach the factual conclusion of what the cited technical material "teaches." In view of the foregoing, if Examiner desires to maintain the rejection, in the next communication, Applicant respectfully requests that the Examiner provide an affidavit or declaration setting forth objectively verifiable evidence in support of Examiner's currently unsupported assertions regarding what the cited technical material "teaches" and/or should be interpreted to "teach." See, e.g., MPEP S 2144.03(C), *If Applicant Challenges a Factual Assertion as Not Properly Officially Noticed or Not Properly Based Upon Common Knowledge, the Examiner Must Support the Finding with Adequate Evidence*, and 37 C.F.R. 1.104(d)(2).

Accordingly, Applicant respectfully requests that Examiner hold Dependent Claims 30-32 patentable for at least the foregoing reasons, and issue a Notice of Allowance on same.

**F. Technical Material Cited by Examiner (Yao in view of Jaeger (US 6,345,028)), Does Not Show or Suggest the Text of Claims 4, and 8-9 as Presented Herein; Notice of Allowance of Same Respectfully Requested**

Claims 4, and 8-9 depend from Independent Claim 1. As remarked above, the Examiner has not established a prima facie case that the art of record anticipates Independent Claim 1.

Besides claims 4, and 8-9 being allowable because they include all the language of their allowable base claim 1, these claims are also allowable because in combining Gallagher with Jaeger, the Examiner has not established a prima facie case of obviousness with respect to claims 4, and 8-9. That is, Yao in view of Jaeger does not establish a prima facie case of obviousness for any of claims 4, and 8-9.

Jaeger's method for direct recording and playback of multiple data tracks and signals uses temporal segments read from the disk and assembled into a composite data frame, but a time stamp associated with each composite data frame merely provides a conventional means for accessing the data on a spatial storage medium (see Jaeger, col. 5, lines 52-63). Jaeger does not cure the deficiency of Yao of not reciting the elements of Applicant's claim 1. Thus, the combination fails to establish a prima facie case of obviousness.

Given that Applicant has shown, above, what Jaeger in view of Gallagher actually recites, the question thus naturally arises as to how Examiner saw Jaeger in view of Gallagher as "teaching" something related to Claims 4 and 8-9. Applicant respectfully points out that the Applicant's Application is the only objectively verifiable examiner-cited document of record that shows or suggests what Examiner purports the reference to teach. From this and the express recitations of Jaeger in view of Gallagher as set forth, it follows that Examiner is interpreting Jaeger in view of Gallagher through the lens of Applicant's application, which is impermissible hindsight use. Thus, at present, Examiner's assertions regarding Jaeger are untenable. Under the MPEP guidelines as set forth above, the cited art of record fails to establish a prima facie case of unpatentability for at least these reasons. Accordingly, for at least the foregoing reasons, Applicant respectfully requests that Examiner hold Claims 4 and 8-9 allowable and issue a Notice of Allowability of same.

In the alternative and/or in addition to the foregoing, as Examiner has provided no objectively verifiable evidence, nor argument based on objectively verifiable evidence, in support of Examiner assertions regarding what the technical material cited by Examiner "teaches," Applicant infers that the Examiner is relying on "personal knowledge" and/or is taking "official notice" of one or more factors to reach the factual conclusion of what

the cited technical material “teaches.” In view of the foregoing, if Examiner desires to maintain the rejection, in the next communication, Applicant respectfully requests that the Examiner provide an affidavit or declaration setting forth objectively verifiable evidence in support of Examiner’s currently unsupported assertions regarding what the cited technical material “teaches” and/or should be interpreted to “teach.” *See, e.g., MPEP S 2144.03(C), If Applicant Challenges a Factual Assertion as Not Properly Officially Notices or Not Properly Based Upon Common Knowledge, the Examiner Must Support the Finding with Adequate Evidence*, and 37 C.F.R. 1.104(d)(2).

Accordingly, under the MPEP standards as set forth above, the Examiner has not established a prima facie case that art of record renders unpatentable claims 4, and 8-9. Applicant respectfully asks the Examiner to hold claims 4, and 8-9 allowable and issue a Notice of Allowance of same.

**1. Dependent Claims 4, and 8-9: Patentable for at Least Reasons of Dependency from Independent Claim 1.**

In addition to the above remarks, claims 4, and 8-9 also depend either directly or indirectly from Independent Claim 1. “A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers.” *See* 35 U.S.C. § 112 paragraph 4. Consequently, Dependent Claims 4, and 8-9 are patentable for at least the reasons why Independent Claim 1 is patentable.

Given that Applicants have shown above what Yao and Jaeger actually recite, the question thus naturally arises as to how Examiner saw Yao and Jaeger as teaching clauses [a] and [b] of Independent Claim 1, or other recitations of dependent claims 4, and 8-9. Applicants respectfully point out that the Applicants’ Application is the only objective examiner-cited document of record that shows or suggests what Examiner purports the reference to teach. From this and Yao and Jaeger’s express recitations (see above), it follows that Examiner is interpreting Yao and Jaeger through the lens of Applicants’ application, which is impermissible hindsight use. Thus, at present, Examiner’s assertions regarding Yao and Jaeger are untenable.



In the alternative and/or in addition to the foregoing, as Examiner has provided no objectively verifiable evidence, nor argument based on objectively verifiable evidence, in support of Examiner assertions regarding what the technical material cited by Examiner “teaches,” Applicant infers that the Examiner is relying on “personal knowledge” and/or is taking “official notice” of one or more factors to reach the factual conclusion of what the cited technical material “teaches.” In view of the foregoing, if Examiner desires to maintain the rejection, in the next communication, Applicant respectfully requests that the Examiner provide an affidavit or declaration setting forth objectively verifiable evidence in support of Examiner’s currently unsupported assertions regarding what the cited technical material “teaches” and/or should be interpreted to “teach.” *See, e.g.,* MPEP S 2144.03(C), *If Applicant Challenges a Factual Assertion as Not Properly Officially Notices or Not Properly Based Upon Common Knowledge, the Examiner Must Support the Finding with Adequate Evidence*, and 37 C.F.R. 1.104(d)(2).

Accordingly, Applicant respectfully requests that Examiner hold Dependent Claims 4, and 8-9 patentable for at least the foregoing reasons, and issue a Notice of Allowance on same.

**G. Technical Material Cited by Examiner (Yao in view of Jaeger (US 6,345,028)), Does Not Show or Suggest the Text of Claims 20 and 24-25 as Presented Herein; Notice of Allowance of Same Respectfully Requested**

Claims 20 and 24-25 depend from Independent Claim 17. As remarked above, the Examiner has not established a prima facie case that the art of record anticipates Independent Claim 17.

Besides claims 20 and 24-25 being allowable because they include all the language of their allowable base claim 17, these claims are also allowable because in combining Gallagher with Jaeger, the Examiner has not established a prima facie case of obviousness with respect to claims 20 and 24-25. That is, Yao in view of Jaeger does not establish a prima facie case of obviousness for any of claims 20 and 24-25.

Jaeger’s method for direct recording and playback of multiple data tracks and signals uses temporal segments read from the disk and assembled into a

composite data frame, but a time stamp associated with each composite data frame merely provides a conventional means for accessing the data on a spatial storage medium (see Jaeger, col. 5, lines 52-63). Jaeger does not cure the deficiency of Yao of not reciting the elements of Applicant's claim 17. Thus, the combination fails to establish a prima facie case of obviousness.

Given that Applicant has shown, above, what Yao in view of Jaeger actually recites, the question thus naturally arises as to how Examiner saw Jaeger in view of Gallagher as "teaching" something related to Claim 17. Applicant respectfully points out that the Applicant's Application is the only objectively verifiable examiner-cited document of record that shows or suggests what Examiner purports the reference to teach. From this and the express recitations of Yao in view of Jaeger as set forth, it follows that Examiner is interpreting Yao in view of Jaeger through the lens of Applicant's application, which is impermissible hindsight use. Thus, at present, Examiner's assertions regarding Yao in view of Jaeger are untenable. Under the MPEP guidelines as set forth above, the cited art of record fails to establish a prima facie case of unpatentability for at least these reasons. Accordingly, for at least the foregoing reasons, Applicant respectfully requests that Examiner hold Claim 17 allowable and issue a Notice of Allowability of same.

In the alternative and/or in addition to the foregoing, as Examiner has provided no objectively verifiable evidence, nor argument based on objectively verifiable evidence, in support of Examiner assertions regarding what the technical material cited by Examiner "teaches," Applicant infers that the Examiner is relying on "personal knowledge" and/or is taking "official notice" of one or more factors to reach the factual conclusion of what the cited technical material "teaches." In view of the foregoing, if Examiner desires to maintain the rejection, in the next communication, Applicant respectfully requests that the Examiner provide an affidavit or declaration setting forth objectively verifiable evidence in support of Examiner's currently unsupported assertions regarding what the cited technical material "teaches" and/or should be interpreted to "teach." See, e.g., MPEP S 2144.03(C), *If Applicant Challenges a Factual Assertion as Not Properly Officially Noticed or Not Properly Based Upon Common Knowledge, the Examiner Must Support the Finding with Adequate Evidence*, and 37 C.F.R. 1.104(d)(2).

Accordingly, under the MPEP standards as set forth above, the Examiner has not established a prima facie case that art of record renders unpatentable claims 20 and 24-25. Applicant respectfully asks the Examiner to hold claims 20 and 24-25 allowable and issue a Notice of Allowance of same.

**1. Dependent Claims 20 and 24-25: Patentable for at Least Reasons of Dependency from Independent Claim 17.**

In addition to the above remarks, claims 20 and 24-25 also depend either directly or indirectly from Independent Claim 17. "A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers." *See* 35 U.S.C. § 112 paragraph 4. Consequently, Dependent Claims 20 and 24-25 are patentable for at least the reasons why Independent Claim 17 is patentable.

Given that Applicants have shown above what Yao and Jaeger actually recite, the question thus naturally arises as to how Examiner saw Yao and Jaeger as teaching clauses [a] and [b] of Independent Claim 17, or other recitations of dependent claims 20 and 24-25. Applicants respectfully point out that the Applicants' Application is the only objective examiner-cited document of record that shows or suggests what Examiner purports the reference to teach. From this and Yao and Jaeger's express recitations (see above), it follows that Examiner is interpreting Yao and Jaeger through the lens of Applicants' application, which is impermissible hindsight use. Thus, at present, Examiner's assertions regarding Yao and Jaeger are untenable.

In the alternative and/or in addition to the foregoing, as Examiner has provided no objectively verifiable evidence, nor argument based on objectively verifiable evidence, in support of Examiner assertions regarding what the technical material cited by Examiner "teaches," Applicant infers that the Examiner is relying on "personal knowledge" and/or is taking "official notice" of one or more factors to reach the factual conclusion of what the cited technical material "teaches." In view of the foregoing, if Examiner desires to maintain the rejection, in the next communication, Applicant respectfully requests that the Examiner provide an affidavit or declaration setting forth objectively verifiable

evidence in support of Examiner's currently unsupported assertions regarding what the cited technical material "teaches" and/or should be interpreted to "teach." See, e.g., MPEP S 2144.03(C), *If Applicant Challenges a Factual Assertion as Not Properly Officially Noticed or Not Properly Based Upon Common Knowledge, the Examiner Must Support the Finding with Adequate Evidence*, and 37 C.F.R. 1.104(d)(2).

Accordingly, Applicant respectfully requests that Examiner hold Dependent Claims 20 and 24-25 patentable for at least the foregoing reasons, and issue a Notice of Allowance on same.

#### **IV. REJECTIONS UNDER 35 USC § 101**

The Applicant amends claims 1 and 17 to more particularly point out and distinctly claim the subject matter. The amendments to claims 1 and 17 are not narrowing or further limiting, but are intended to add clarity.

Claim 1, as amended, recites at least "transmitting the content," or more specifically, "transmitting the content according to the schedule, wherein the content is addressable at the one or more transmission times." Because transmitting content is a tangible result with utility in practical applications to produce real world results, Applicant respectfully requests that the 35 USC 101 rejection be removed from claim 1.

Claims 2-16 depend from claim 1. Since dependent claims contain all the language of their base claim, Applicant respectfully requests that the 35 USC 101 rejection be removed from claims 2-16.

Claim 17, as amended, recites at least "means for transmitting the content," or more specifically, "means for transmitting the content according to the schedule, wherein the content is addressable at the one or more transmission times." Because means for transmitting content produces a tangible result with utility in practical applications to produce real world results, Applicant respectfully requests that the 35 USC 101 rejection be removed from claim 1.

Claims 18-32 depend from claim 17. Since dependent claims contain all the language of their base claim, Applicant respectfully requests that the 35 USC 101 rejection be removed from claims 18-32.

## **V. OBJECTIONS TO SPECIFICATION**

The Office objected to the abstract of the specification, and a substitute abstract has been provided. The Applicant respectfully requests reconsideration and withdrawal of this objection.

The Office objected to the disclosure as containing an embedded hyperlink. Applicant has amended the specification to remove the hyperlink, and respectfully requests withdrawal of this objection.

The Office objected to the disclosure for containing “continuation-in-part” language. Applicant has amended the specification to remove this language, and respectfully requests withdrawal of this objection.

## **VI. CONCLUSION**

Applicant may have during the course of prosecution cancelled and/or amended one or more claims. Applicant notes that any such cancellations and/or amendments will have transpired (i) prior to issuance and (ii) in the context of the rules that govern claim interpretation during prosecution before the United States Patent and Trademark Office (USPTO). Applicant notes that the rules that govern claim interpretation during prosecution form a radically different context than the rules that govern claim interpretation subsequent to a patent issuing. Accordingly, Applicant respectfully submits that any cancellations and/or amendments during the course of prosecution should be held to be tangential to and/or unrelated to patentability in the event that such cancellations and/or amendments are viewed in a post-issuance context under post-issuance claim interpretation rules.

Insofar as that the Applicant may have during the course of prosecution cancelled/amended claims sufficient to obtain a Notice of Allowability of all claims pending, Applicant may not have during the course of prosecution explicitly addressed all rejections and/or statements in Examiner’s Office Actions. The fact that rejections and/or statements may not be explicitly addressed during the course of prosecution should NOT be taken as an admission of any sort, and Applicant hereby reserves any and all rights to contest such rejections and/or statements at a later time.

Specifically, no waiver (legal, factual, or otherwise), implicit or explicit, is hereby intended (e.g., with respect to any facts of which Examiner took Official Notice, and/or for which Examiner has supplied no objective showing, Applicant hereby contests those facts and requests express documentary proof of such facts at such time at which such facts may become relevant). For example, although not expressly set forth during the course of prosecution, Applicant continues to assert all points of (e.g. caused by, resulting from, responsive to, etc.) any previous Office Action, and no waiver (legal, factual, or otherwise), implicit or explicit, is hereby intended. Specifically, insofar as that Applicant does not consider the cancelled/unamended claims to be unpatentable, Applicant hereby gives notice that it may intend to file and/or has filed a continuing application in order prosecute such cancelled/unamended claims.

With respect to any cancelled claims, such cancelled claims were and continue to be a part of the original and/or present patent application(s). Applicant hereby reserves all rights to present any cancelled claim or claims for examination at a later time in this or another application. Applicant hereby gives public notice that any cancelled claims are still to be considered as present in all related patent application(s) (e.g. the original and/or present patent application) for all appropriate purposes (e.g., written description and/or enablement). Applicant does NOT intend to dedicate the subject matter of any cancelled claims to the public.

The Examiner is invited to contact Mark C. Farrell (509) 290-6316 or Dale R. Cook at (425) 467-2260 with any issues that may advance prosecution of the application on the merits.

Respectfully submitted,

Nov. 5, 2008  
Date

/Dale C. Barr, Reg. No. 40,498/  
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